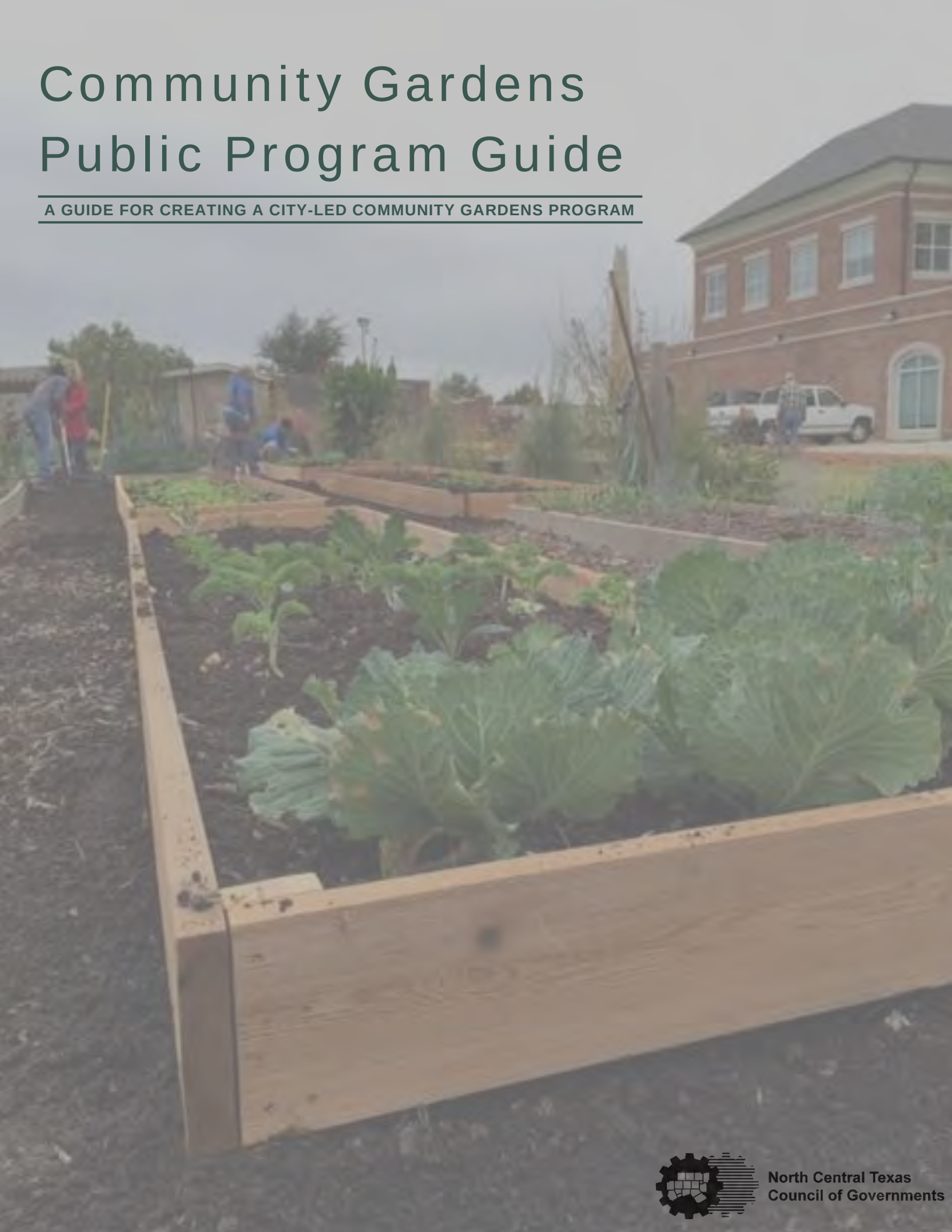
Community Gardens Public Program Guide

A GUIDE FOR CREATING A CITY-LED COMMUNITY GARDENS PROGRAM



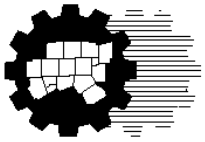
North Central Texas Council of Governments

What is NCTCOG?

The **North Central Texas Council of Governments** (NCTCOG) is a voluntary association of, by, and for **local governments** within the 16-county North Central Texas Region. The agency was established by state enabling legislation in 1966 to assist local governments in **planning** for common needs, **cooperating** for mutual benefit, and **coordinating** for sound regional development. Its purpose is to strengthen both the individual and collective power of local governments, and to help them recognize regional opportunities, resolve regional problems, eliminate unnecessary duplication, and make joint regional decisions – as well as to develop the means to implement those decisions.

North Central Texas is a 16-county **metropolitan region** centered around Dallas and Fort Worth. The region has a population of more than 7 million (which is larger than 38 states), and an area of approximately 12,800 square cities, 19 independent school districts, and 25 special districts.

NCTCOG's structure is relatively simple. An elected or appointed public official from each member government makes up the **General Assembly** which annually elects NCTCOG's **Executive Board**. The Executive Board is composed of 17 locally elected officials and one ex-officio non-voting member of the legislature. The Executive Board is the policy-making body for all activities undertaken by NCTCOG, including program activities and decisions, regional plans, and fiscal and budgetary policies. The Board is supported by policy development, technical advisory and study **committees** – and a professional staff led by **R. Michael Eastland**, Executive Director.



NCTCOG's offices are located in Arlington in the Centerpoint Two Building at 616 Six Flags Drive (approximately one-half mile south of the main entrance to Six Flags Over Texas).

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NCTCOG's Department of Transportation

Since 1974, NCTCOG has served as the Metropolitan Planning Organization (MPO) for transportation for the Dallas-Fort Worth area. NCTCOG's Department of Transportation is responsible for the regional planning process for all modes of transportation. The department provides technical support and staff assistance to the Regional Transportation Council and its technical committees, which compose the MPO policy-making structure. In addition, the department provides technical assistance to the local governments of North Central Texas in planning, coordinating, and implementing transportation decisions.

Prepared in cooperation with the U.S. Department of Transportation (Federal Highway Administration and Federal Transit Administration) and the Texas Department of Transportation.

The contents of this report reflect the views of the authors who are responsible for the opinions, findings, and conclusions presented herein. The contents do not necessarily reflect the views or policies of the Federal Highway Administration, the Federal Transit Administration, or the Texas Department of Transportation.

Community Gardens **Public** Program Guide

A GUIDE FOR CREATING A CITY-LED COMMUNITY GARDENS PROGRAM

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North Central Texas Council of Governments

North Central Texas Community Gardens Public Program Guide
May 2023

Executive Summary

The North Central Texas Council of Governments (NCTCOG) created this guide to provide information, resources, and tools for city staff, decision-makers, and others to develop and implement a public community gardens program. This guide focuses on potential program frameworks and steps that municipalities and other public organizations (e.g., transit agencies) may consider when developing a publicly led community gardens program. The creation of this guide was inspired by the Dallas Area Rapid Transit (DART) Hatcher Station Community Garden Pilot Project, which was funded by the NCTCOG Blue-Green-Grey funding initiative in 2019. The Hatcher Station Community Garden Pilot Project consisted of a programmatic approach to convert small, unused parcels in a DART-owned right-of-way into a productive community garden in a food desert near a transit center and a farmers' market.

This guide also provides background information on community gardens and food access in the United States and the Dallas-Fort Worth (DFW) region. Community gardens can play a role in food access and security by providing better access to healthy food, which can improve diet and nutrition for community members. Implementing gardens near transit stations or bike paths can further increase opportunities to access healthy food, especially for those without an automobile.

Finally, this guide features the results of a public open space analysis conducted by NCTCOG staff. The analysis shows publicly owned open spaces that could be suitable for community gardens based on a number of factors. Properties are located in Collin, Dallas, Denton, and Tarrant counties.

With the above considerations and after researching and interviewing representatives of several different types of public community garden programs, NCTCOG staff developed the following steps for implementing a local government led program:

1. Determine resources
2. Identify goals and purpose
3. Establish stakeholders

4. Choose framework
5. Develop agreements
6. Develop applications and timeline
7. Garden education
8. Program implementation
9. Review submitted applications
10. Construct gardens
11. Evaluate program

NCTCOG also examined both in-region and out-of-region case studies to provide real-world examples, maintenance requirements, lessons learned, and benefits of community gardens.

Note: Photo sources are included in the photo captions. If no source is listed, the photo was taken by NCTCOG staff.

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1. INTRODUCTION

COMMUNITY GARDENS OVERVIEW

The National Agricultural Library, under the U.S. Department of Agriculture Alternative Farming Systems Information Center, defines a community garden as “plots of lands, usually in urban areas, which are rented by individuals or groups for private gardens or are the benefit of the people caring for the garden.” Community gardens can be located anywhere, but are often found in public or institutional spaces, such as parks, nonprofit organizations or religious-affiliated properties, schools, or vacant lots. The American Community Gardens Association (ACGA) recognizes that community gardening improves people’s quality of life by:

- Providing a catalyst for neighborhood and community development
- Stimulating social interaction
- Encouraging self-reliance
- Beautifying neighborhoods
- Producing nutritious food
- Reducing family food budgets
- Conserving resources
- Creating opportunities for recreation, exercise, therapy, and education.

There are many recognized types of community gardens, each with its own purpose and goal. Most commonly, community gardens are used for small-scale food production or learning purposes. These types will be discussed through this guide, along with a few other, less common types. Though community gardens vary in how they are organized, the following are common community garden characteristics as stated by the ACGA:

- Location can be urban, suburban, or rural
- Grow a variety of plants
- Consist of communal or individual plots
- Managed or owned by various types of organizations (i.e., churches, neighborhood groups, schools, cities, etc.)

WHY THIS GUIDE WAS DEVELOPED

Who Is This Guide Intended for?

The North Central Texas Council of Governments (NCTCOG) created this guide to aid cities and counties by assessing their choices when considering establishing a publicly led community

gardens program. Staff that might be involved with the development and implementation of a community gardens program include parks and recreation staff, planners, environment-focused departments, public works, code enforcement, and other city staff. This guide can be used to generate ideas and facilitate conversations between local government staff and stakeholders such as nonprofit organizations that may have a role in helping to develop the program.

Community garden programs are more likely to be successful in the long term and provide greater benefits to their communities if planned properly and have dedicated resources.[1] The ACGA states that garden sponsors are a significant asset to gardens programs. While the program lead department may vary, creating partnerships between city departments (planning, parks/recreation, environmental, etc.) or outside organizations/stakeholders can foster a more robust program that will ideally resolve stress on the local food system. Food insecurity and food access have been identified as issues of concern in the Dallas-Fort Worth metroplex. According to Feeding America,[2] in 2019, there were 364,840 people in Dallas County and 266,890 in Tarrant County who were considered "food insecure". A barrier contributing to food access and insecurity is vehicle ownership or transit access. For this reason, this guide focuses on providing guidance for developing community garden programs that target garden development near rail stations or other forms of nonmotorized transportation infrastructure, such as bicycle and pedestrian paths.

Purpose and Goals of the Guide

The goals of this guide are to:

- Provide local governments with a detailed framework and tools for establishing publicly led community gardens programs
- Facilitate development of community gardens near transit as one method of increasing access to fresh, healthy food
- Highlight the benefits of community gardens
- Emphasize the role community gardens play in food access/security
- Provide resources and funding information
- Act as a resource for conversations between local governments and community stakeholders
- Encourage communication between decision-makers/program leaders and stakeholders

This guide focuses on frameworks and tools that municipalities can use to start a community gardens program and maintain the garden sites overall. There are many types of garden programs; however, this guide will primarily focus on programs where local governments manage and maintain the program entirely through staffing, garden site selection, land use permitting,

[1] American Community Garden Association: https://www.communitygarden.org/
[2] Feeding America: https://map.feedingamerica.org/county/2019/overall/texas

funding or other resources, and application processing. A benefit to this type of program is having dedicated staff and resources that allow the program to be consistently maintained, as this is usually not the case for other program types. Local governments can more effectively oversee gardens to ensure that sites are not a nuisance for residents and promote them to the community. Local governments garden programs may also be integrated into a city department that will provide continuous support. Finally, local governments usually have partnerships with other public entities and these relationships can easily be leveraged to benefit a local government-led garden program. According to the International City/County Management Association[3] other potential benefits of publicly led community gardens programs include:

- Low-cost redevelopment: gardens can be installed on neglected or abandoned properties
- Support social services programs: increased partnerships with local organizations (e.g., food banks)
- Educational opportunities: gardens can be used to educate children or adults about nutrition and gardening
- Promote healthy communities: gardens allow people to have healthier food options
- Encourage socializing: gardens provide a space for community members to gather and socialize

Resources related to best practices for the creation of bylaws and other agreements, garden production options, zoning and land use review, funding, garden longevity, and various other aspects are cited throughout this guide. Example applications, ordinances, evaluation tools, and other materials included in the Appendix can be used as resources.

While this guide will help provide a foundation and ideas for implementing a community gardens program, city staff will still need to evaluate their city's land uses, regulations, and available resources (i.e., staff, funding, etc.) for their individual programs.

HOW THIS GUIDE WAS DEVELOPED

The creation of this guide was influenced by the Dallas Area Rapid Transit (DART) Hatcher Station Community Garden Pilot Project, which was a part of the NCTCOG Blue-Green-Grey funding initiative in 2019. The Blue-Green-Grey funding program focuses on breaking the silos between water infrastructure, the environment, and transportation infrastructure to help create

and fund innovative projects that combine these components and can be replicated throughout the metroplex.

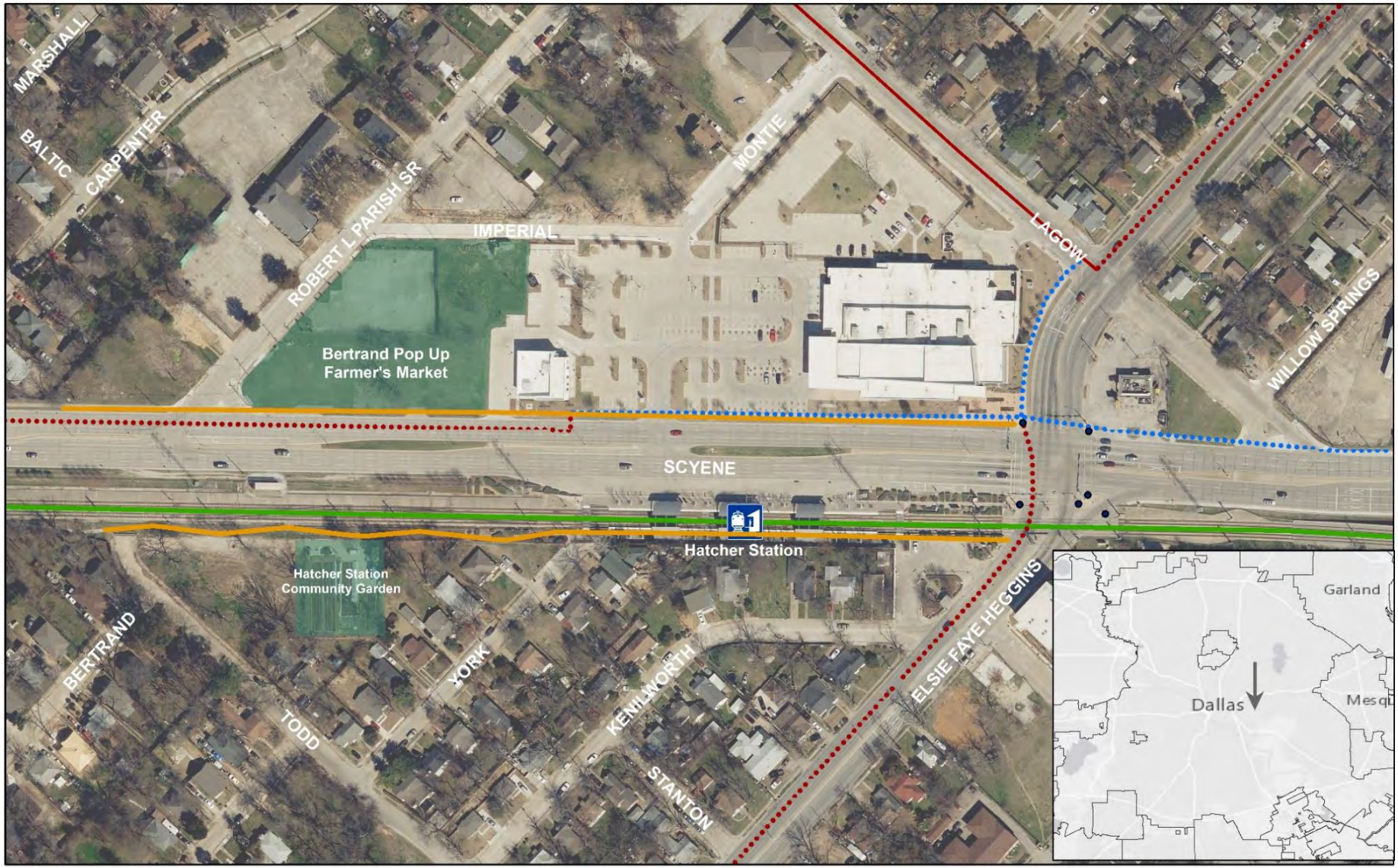
The Hatcher Station Community Garden Pilot Project consisted of a programmatic approach to convert small, unused parcels in a DART-owned right-of-way into a productive community garden for local residents in a food desert near a transit center and a farmers' market. This example of a community garden near a rail station formed the impetus for NCTCOG to develop a larger framework that local governments can use to develop community garden programs, particularly near transit. Exhibit 1 shows a map of the DART Hatcher Station Community Garden.

Plots being watered at DART Hatcher Station Community Garden. Photo courtesy of DART.

To develop this guide, NCTCOG interviewed various staff with city-led gardens programs throughout the state and across the nation and reviewed current research, literature, and examples related to community gardens development and food access. The list of reviewed programs can be found in Appendix A.

The goal is to provide a framework for creating publicly-led community gardens programs, with a focus on addressing issues related to food deserts and food access by locating community gardens on public land near transportation infrastructure such as rail stations.

Exhibit 1: DART Hatcher Station Community Garden



2. COMMUNITY GARDENS OVERVIEW

OVERVIEW OF COMMUNITY GARDENS IN THE UNITED STATES

Community gardens in the U.S. have existed since the 1890s, according to the Smithsonian Institute.[4] Local governments have long relied on community gardens to help revitalize neighborhoods, create gathering places, lessen the effects of urban development, grow healthy food options, and provide a space for environmental education.

According to the Trust for Public Land, community gardens are growing rapidly. Plots in city parks have increased by 44 percent since 2012. As of 2018, there were more than 29,000 garden plots located in city parks in the 100 largest U.S. cities, an increase of 22 percent from the prior year.[5] The ACGA maintains a gardens map[6] where communities located around the world can submit their gardens to be documented. The ACGA gardens map shows that there are over 200 documented community gardens in Texas, with approximately 62 of those in the Dallas-Fort Worth region. The gardens documented by ACGA feature those managed by volunteer organizations, non-profits, church groups, and more.

Types of Community Gardens

Community gardens are established for diverse purposes and include many types, all with different goals, such as[7,8]:

- **Plot Gardens:** Subdivided, family-sized garden plots ranging from 100 to 500 square feet.
- **Cooperative Gardens:** Managed as one large garden through the coordinated efforts of many community members.
- **Learning Gardens:** Raised-bed gardens, or plots on school grounds, assigned to classes with hands-on curricula and activities.
- **Entrepreneurial Gardens:** Focus is on community members learning how to grow and sell food.
- **Therapeutic Gardens:** Located in settings such as hospitals and nursing homes to improve the psychological and physical wellbeing of patients and their families.
- **Pollinator gardens:** Feature plants that supply preferred plants to various pollinators with the goal of supporting environmental and ecological health and aesthetics.

[4] Smithsonian Institute: https://communityofgardens.si.edu/exhibits/show/historycommunitygardens/intro
[5] Trust for Public Land: https://www.tpl.org/blog/dirt-park-trends-community-gardens-are-growing
[6] ACGA garden sites map: https://www.communitygarden.org/garden
[7] NC State Extension: https://content.ces.ncsu.edu/how-to-organize-a-community-garden
[8] American Planning Association: Climate-Resilient Pollinator Gardens (planning.org)

There are many ways to operationally set up each of the gardens mentioned above. This guide focuses on gardens managed and operated by local municipalities, with some discussion on organization-led programs. Focusing on the city-led operation style, this guide will also primarily discuss the plot and cooperative garden types. Resources for other garden types and operational styles are available in Appendix A.

Pollinator garden at community garden in Grand Prairie. Photo courtesy of the City of Grand Prairie.

3. COMMUNITY GARDENS IN DALLAS-FORT WORTH REGION

ESTABLISHED GARDENS PROGRAMS

Exhibit 7 highlights existing city-led community gardens programs both in and outside of the region, the program structure, and which city department it could fall under.

ANALYSIS OF POTENTIAL GARDEN SITES

Purpose

To support the development of additional garden programs, NCTCOG completed an analysis of sites across the region where community gardens could potentially be established by local governments. This analysis focused on public properties situated around light rail and commuter rail transit stations and near trails in the Dallas-Fort Worth metroplex.

The purpose of this analysis is to highlight publicly owned property near transit stations and trails that could be suitable for community garden development, as a starting point for consideration of where community gardens could be located. The goal is to provide a tool for local governments to use to gauge where community gardens might best fit in their community. For better viewing of the individual properties and summary statistics, this tool can also be accessed in interactive map format at https://arcg.is/1D9eDu0. This map allows potential garden sites to be overlaid with locations of existing transit stations as well as bicycle and pedestrian paths.

This is a high-level inventory. Local governments interested in establishing a program should conduct their own analysis to assess the fit of public properties for community gardens. Local governments are also encouraged to cross-examine the NCTCOG analysis to check the accuracy of public lands and locations of schools, public buildings, and other key features. Identified sites are featured in Exhibits 2-6.

Analysis Steps

This analysis was conducted using a GIS query of property appraisal data to highlight properties with the following characteristics:

- Publicly-owned properties (including city, county, transit districts, educational facilities, and non-profit organizations). Reason: emphasis on establishment of public gardens programs.
- Properties within 0.5 miles of a transit station. Reason: emphasis on access to non-automobile modes of transportation access.

- Properties within 0.5 miles of existing bicycle or pedestrian facilities or the regional Veloweb. Reason: emphasis on non-motorized modes of transportation access.
- Less than 10 percent slope. Reason: gardens should be located on generally flat surfaces for optimal growing and maintenance conditions.

Other Considerations

Soil conditions were not considered in this analysis because gardens can be established on most soil types by using raised beds (see Appendix B). This is a common practice for gardens in the region. Another element gardens programs can consider is the amount of tree shade in or near a potential garden site.

Analysis Summary Statistics

The analysis identified 12,555 acres of open space in Dallas, Denton, Collin, and Tarrant counties that could be suitable, based on the above criteria, for a community garden. There are 68 organizations in total, including 22 cities. The City of Dallas and DART have the most properties; the City with 621 total properties and 433 properties for DART. Dallas Independent School District has both the largest single property at 321 acres and smallest property at 0.310 acres. Maps of the garden sites in Collin, Dallas, Denton, and Tarrant counties are featured in the map exhibits on the following pages.

Exhibit 2: Potential Community Garden Sites

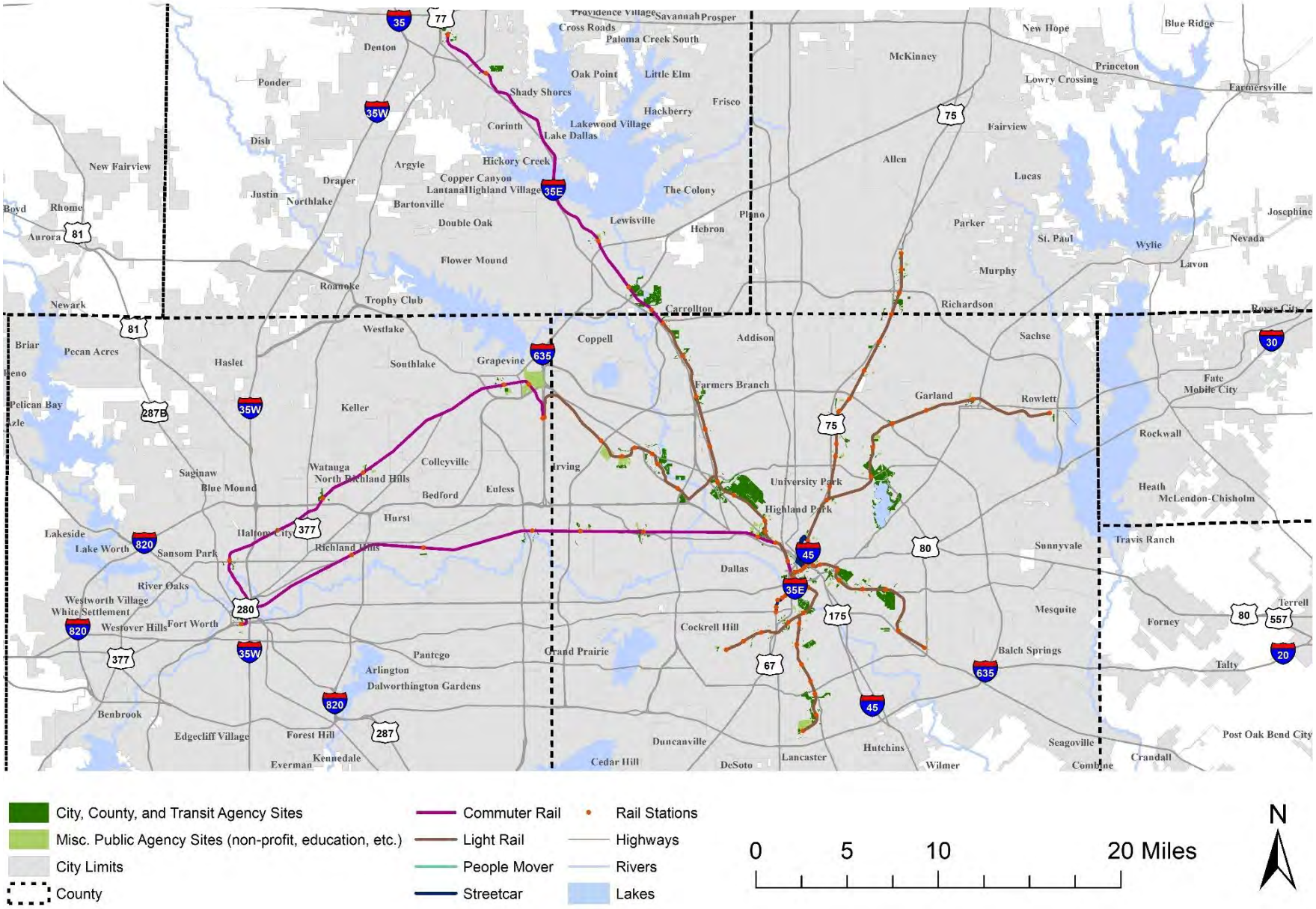
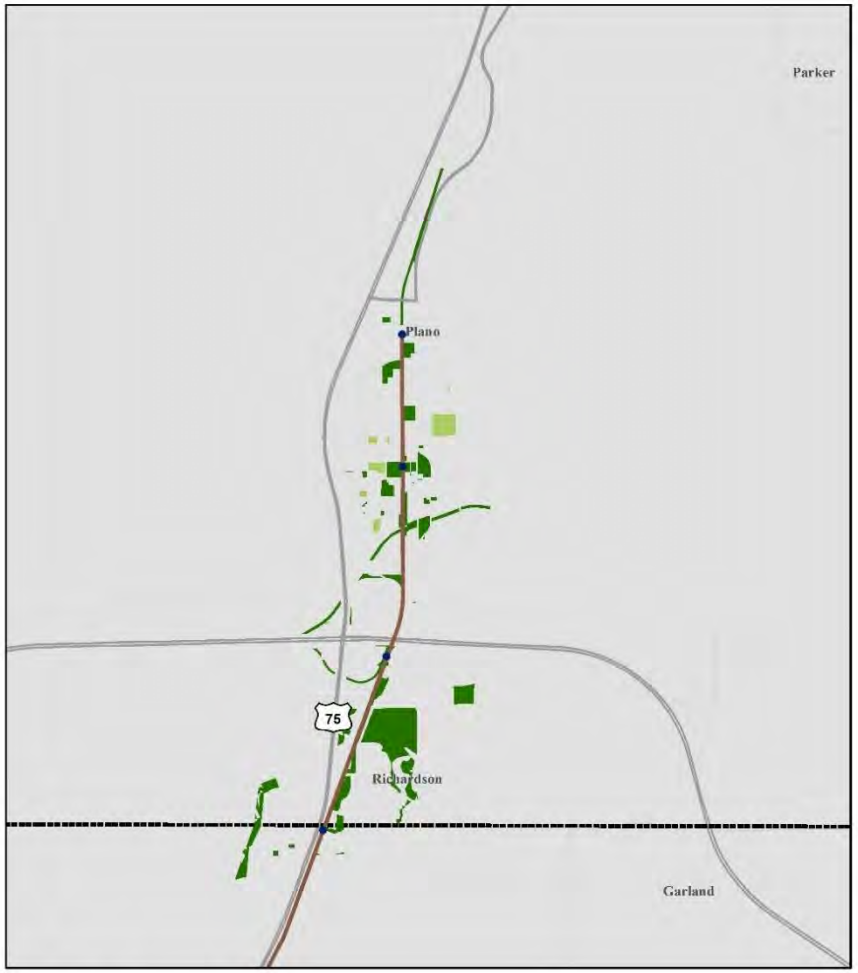


Exhibit 3: Collin County Potential Garden Sites



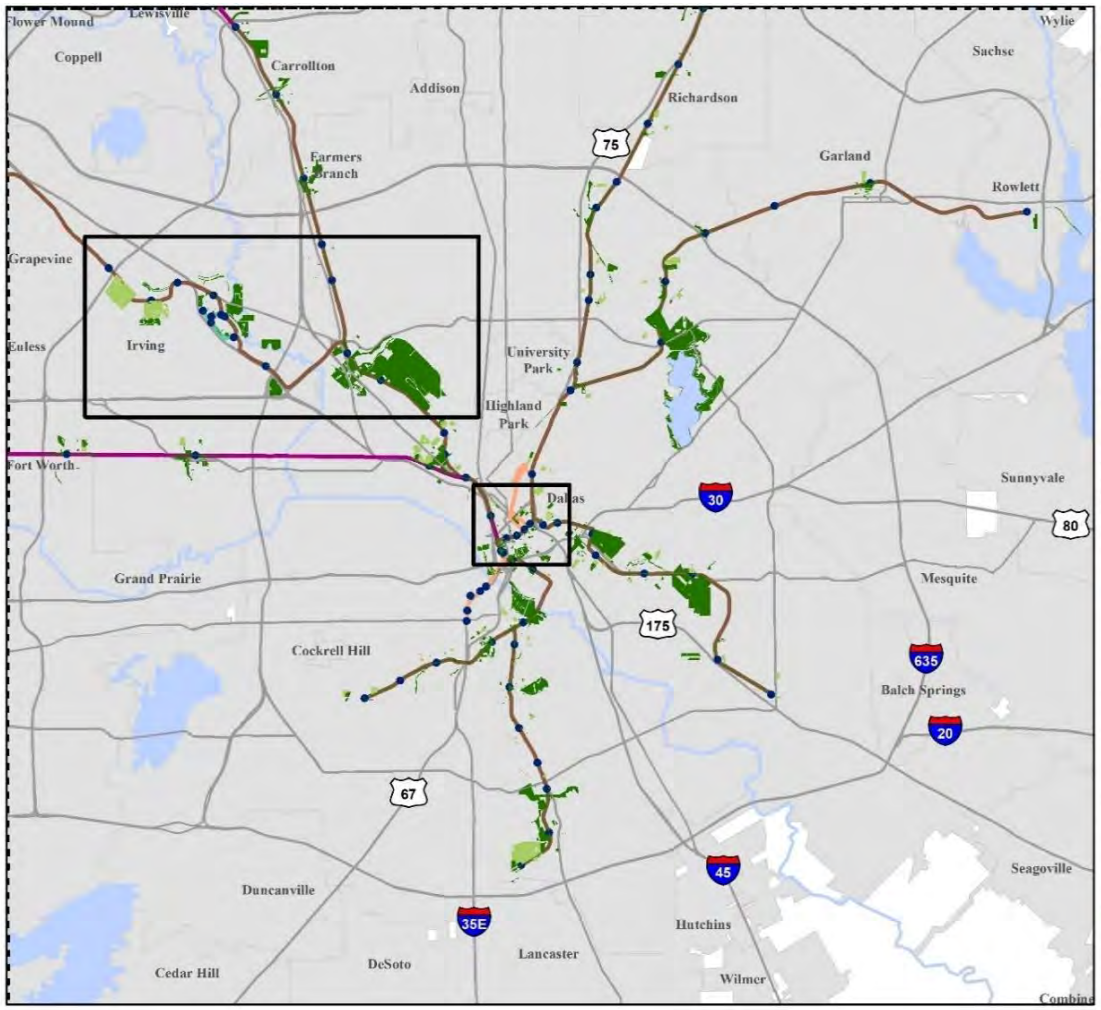
Legend

- City-County-Transit Open Spaces
- Other Public Open Spaces
- County
- Highways
- City Limits
- Rail Stations
- Commuter Rail
- Light Rail
- People Mover
- Streetcar
- Lakes
- Rivers

0 1 2 4 Miles

N

Exhibit 4: Dallas County Potential Garden Sites



Downtown Dallas

Love Field/Las Colinas Area

Legend

- City-County-Transit Open Spaces
- Other Public Open Spaces
- County
- Highways
- City Limits
- Rail Stations
- Commuter Rail
- Light Rail
- People Mover
- Streetcar
- Lakes
- Rivers

0 4 8 16 Miles

N

Exhibit 5: Denton County Potential Garden Sites

Lewisville Railroad Park Area

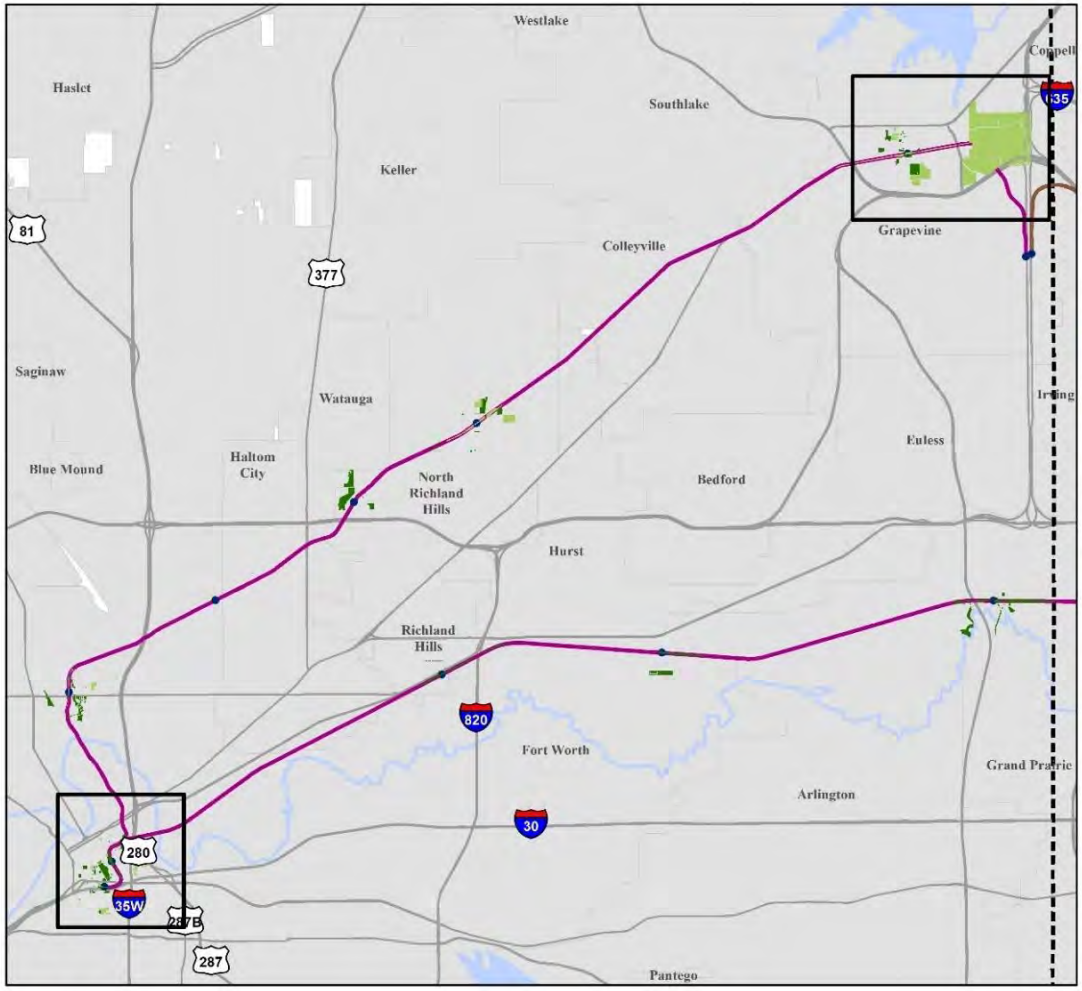
Legend

- City-County-Transit Open Spaces
- Other Public Open Spaces
- County
- Highways
- City Limits
- Rail Stations
- Commuter Rail
- Light Rail
- People Mover
- Streetcar
- Lakes
- Rivers

0 2.5 5 10 Miles

N

Exhibit 6: Tarrant County Potential Garden Sites



DFW Airport Area

Downtown Fort Worth Area

Legend

- City-County-Transit Open Spaces
- Other Public Open Spaces
- County
- Highways
- City Limits
- Rail Stations
- Commuter Rail
- Light Rail
- People Mover
- Streetcar
- Lakes
- Rivers

0 2.5 5 10 Miles

N

4. FOOD ACCESS OVERVIEW

FOOD ACCESS AND SECURITY

Community gardens can play a role in food access and security by providing better access to healthy food, which can improve diet and nutrition for community members. The United States Department of Agriculture (USDA) defines food deserts as areas where people have limited access to a variety of healthy and affordable food. Food access is the consideration given to the proximity and availability of quality, healthy, and affordable foods. Lower-income individuals may be faced with barriers to accessing healthy food, such as transportation and affordability, leading to little food choice. Food security consists of food availability, access, and usage[9] and is viewed as an equity issue. The Center for Healthy Living at the University of Texas Health Science Center estimated that approximately 2,403,438 (9 percent) of Texans have both low income and low access to healthy foods, as of 2015.

The Texas A&M AgriLife Extension Service offers a Master Gardener Program to educate local community members on home gardening and plant care. The program requires 50 hours of specialized courses in home gardening and horticulture. The Texas A&M AgriLife Extension Service has offices in Collin, Dallas, Denton, Ellis, Hood, Hunt, Johnson, Parker, Rockwall, Tarrant, and Wise counties.

Beets grown as part of City of Coppell community garden program.

The Extension also established the Growing and Nourishing Healthy Communities program to increase the availability of healthy foods by helping communities establish community gardens. This program began under the premise that an individual's food choice is often affected by what is conveniently available to them, leading to limited choices for residents who live in food deserts. The program is funded in part by the USDA Supplemental Nutritional

[9] Science and Education Resource Center at Carleton College: https://serc.carleton.edu/integrate/teaching_materials/food_supply/student_materials/1063

Assistance Program. Participating Extension offices offer gardening classes and various resources for local communities to start a community gardens program.[10] According to the Extension, the program has harvested 10,303 pounds of produce as of 2018. The program also noted that participants had an increase in fruit, vegetable, and water intake per day, as well as an increase in physical activity.[11]

As mentioned earlier, many people in the Dallas-Fort Worth region struggle with food insecurity. A *Dallas Morning News*[12] article gives insight into how community members in southern Dallas are dealing with this issue using community gardens. Community members state that most gardens are operated by families or nonprofit organizations, and they consider a robust, city-led program to be a good way to establish food access in the area. The City of Austin passed the Sustainable Urban Agriculture and Community Gardens Resolution in 2009, which allows community gardens to operate on public property. The resolution led to the establishment of many community gardens and programs that help further increase food access. More information on the City of Austin and other city-led community gardens programs is featured in Section 6.

The USDA Food Access Research Atlas gives an overview of food access indicators for low-income households that evaluates accessibility to grocery stores and provides food access data for census tract populations. According to the Atlas, as of 2019, 11-27 percent of the population lived in low-income and low access census tracts. USDA documentation regarding the Atlas, states that a tract is low-income if:

- The poverty rate is 20 percent or greater
- The median family income is less than or equal to 80 percent of the state-wide median family income
- The tract is in a metropolitan area and has a median family income less than or equal to 80 percent of the metropolitan area's median family income

The low access designation is given to tracts based on proximity to stores. For urban tracts, the distance is 0.5 to 1 mile, while rural tracts are 10 to 20 miles. Local governments can use this information to determine where to locate community gardens if the purpose of the program is to support food access and security within the community. Additionally, the Food Environment

[10] GNHC Instructor Handbook: https://txmg-wpengine.netdna-ssl.com/files/GNHC-Instructors-Guide.pdf
[11] Better Living for Texans 2018 Impact Infographic: https://community-nutrition-education.extension.org/wp-content/uploads/2019/03/BLT-Impact-Infographic-FY-2018.pdf
[12] Dallas Morning News: In Dallas' food deserts, community gardens ease — but don't end — food insecurity (dallasnews.com)

Atlas[13] contains information on the statistics of food choices and community characteristics for all communities in the U.S. Resources are also listed in Appendix B.

TRANSPORTATION AND RIDERSHIP CONSIDERATIONS

Because low-income communities often have low car ownership, not having access to safe, alternative modes of transportation can create barriers for many individuals and families throughout the country. Lack of vehicle access, safe pedestrian access, and/or transit are all challenges some are faced with daily. This often means that their access to food is limited, as well.

Community garden located under transit line in Vancouver.

Implementing community gardens near public transit can help reduce this barrier by improving people's access to healthier food options. 4.3 percent of households in Tarrant County have no vehicle. In contrast, 13.9 percent of households in persistent poverty tracts in zip code 76104, whose residents are predominantly minorities, have no vehicle. Residents within that zip code likely have challenges accessing food due to the lack of a vehicle. Increasing opportunities for transit and bicycle/pedestrian trips can help increase access to food as well as other services and amenities.

Increased coordination between transit agencies, land use planners, and garden programs could improve access via transit or bikeway to healthier food options in DFW and lessen the burden on these communities. The region's three major transit authorities provided a combined 25 million rides to customers in 2021 and the region's buses and trains experienced ridership growth throughout the year. Federal COVID-19 assistance programs continued to help the region's transit agencies with operational expenses in 2021. The region has received more than $800 million in COVID relief to help keep transit moving.

[13] USDA Food Access Research Atlas: https://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas/

Bicycle and pedestrian facilities also play a crucial role in food access. If car ownership or transit accessibility is not feasible, walking or biking may be the only mode of access to healthier food for some. Ensuring that bicycle and pedestrian elements are accessible, connected, and safe could further help residents in an insecure food area get to healthier foods. The Safe Routes to School Partnership has also created a focus group to address food access called Safe Routes to Healthy Food[14], This initiative has developed published resources with steps to increase infrastructure to better food options.

NCTCOG maintains a regional inventory of trails as well as on-street and off-street bicycle and pedestrian facilities. Currently, there are 519 miles of existing trails, 128 miles of funded trails, and 1,256 miles of planned trails. More information about bike/ped access in the region can be found using the online NCTCOG Veloweb interactive map, located here: https://www.nctcog.org/veloweb. NCTCOG encourages local governments or other organizations using this guide to consider garden locations in relation to current or future transportation facilities, especially in economically disadvantaged areas or those with low car ownership or transit access challenges.

To further increase food access through transportation, local governments could also consider implementing, supporting, or enhancing programs related to:

- Mobile food markets[15]
- Farmer's markets, specifically in food deserts
- Providing opportunities to partner with garden programs

These additional, creative food access solutions can help those without mobility challenges to gain access to healthier food options. Resources related to these services are available at ChangeLab Solutions[16] and Healthy Food Access[17].

[14] Safe Routes to Healthy Food: https://www.saferoutespartnership.org/healthy-communities/101/safe-routes-healthy-food
[15] Tarrant County mobile food markets: https://www.wbap.com/2023/02/22/new-mobile-market-targets-food-insecurity-in-tarrant-county/
[16] ChangeLab Solutions: https://www.changelabsolutions.org/product/healthy-mobile-vending-policies
[17] Healthy Food Access: https://www.healthyfoodaccess.org/mobile-markets

5. CHALLENGES

To provide recommendations for the development of successful programs, common issues and challenges and potential solutions were reviewed. Staff reviewed community garden programs at the national and state levels, conducted a survey of community garden programs in DFW, and conducted interviews with three Texas cities with public community garden programs.

Garden longevity is a crucial element that city or other public entities should consider when developing a program. Many garden programs begin with good intentions but fail or become a burden for the managing person or organization. During interviews with three Texas cities and other entities, the following challenges were noted:

- Funding/Budget constraints
  - City may not have consistent, available funding each year
  - May need to consider alternative funding resources

- Garden locations
  - Sometimes clash with nearby neighborhoods or businesses
  - City may need to adjust zoning/land use policies

- Lack of staff time
  - Administrative tasks can be time-consuming
  - Staff time for community garden programs may be considered lower priority than other projects

- Inconsistent maintenance and upkeep
  - Establishing and maintaining gardens requires considerable time and labor; ensuring volunteers maintain gardens in the long term can be challenging
  - Finding one person to run day-to-day operations is best, but can be difficult

If the city plans to provide funding for a gardens program, it should budget accordingly up front to fund the garden for years after. If the funding will come from elsewhere, establishing a plan to secure funds for years following program establishment can help ensure garden longevity.

Another consideration is the location of gardens. If a city allows applicants/organizations to establish a garden in any public area, it may result in conflict with neighborhoods, businesses, or other residents due to real or perceived concerns about aesthetics, odor, pests, traffic/parking, etc. Local governments should consider where gardens can be placed or provide guidelines regarding placement to reduce the chance of conflict after the garden is established.

6. GARDEN PROGRAM START-UP

BACKGROUND

NCTCOG staff reviewed examples of community gardens programs from around the country and interviewed three city-led gardens programs within Texas to gather insight and best practices from various sized/structured programs. While there are numerous ways of structuring community garden programs, this guide will focus on programs in which the city acts as the program administrator and/or provides financial assistance. Programs may consist of one or many gardens, depending on city resources and program goals.

STEP ONE: DETERMINE RESOURCES

Local governments interested in starting a program will first need to assess their available resources regarding staff time, funding availability, and maintenance and operations. The city may need to evaluate land uses and current zoning ordinances to assess if community gardens are permitted within the city limits. It will take staff time to research and coordinate potential ordinances to present before city administrators and council. The city should also consider which department the gardens program could be established under. Engaging public opinion could be another element to consider. The city could publish a survey to gauge public interest and use the results to determine which garden framework would work best for community members. The city should also determine who will oversee maintenance responsibilities (i.e., city staff or garden volunteers) and have their legal staff write up appropriate agreements (see Step 5). At a minimum, the city should decide who will provide and maintain the below components and outline them in the maintenance agreement:

- Soil
- Water usage/supply
- Pest control
- Other garden-related maintenance considerations (i.e., waste cleanup, security, garden access)

STEP TWO: IDENTIFY GOALS AND PURPOSE

Establishing goals for the garden program could assist the city in determining which type of garden framework would be a good fit. Developing a garden mission statement may be the best way for all participants to arrive at the same goal.

Grow boxes at Hatcher Station community garden in Dallas. Photo courtesy of DART.

The city will first need to outline the purpose and goals of the garden or gardens program. This will help the city determine what type of garden framework will best work to achieve their purpose. As discussed previously, gardens may have a variety of different purposes, such as education, providing food for food banks, or offering opportunities for residents to grow their own food. The type of garden is a major factor in how the garden program is structured and the resources needed. For example, Bonton Farms in South Dallas aims to increase food access and the health of residents through community gardening and managing a farmers' market. The Bicycle Garden in West Dallas focuses on educating community members about the importance of bicycling and gardening through workshops. The City of Grand Prairie provides the gardening program[18] to help residents provide fresh produce for their families and neighbors. Gardeners are asked to donate 10% of what they grow to local food pantries. Some gardens include donation only beds or rows. This resulted in the donation of 7,757 pounds of produce in 2022. Each of these types of gardens has different needs for establishment, maintenance, and resources.

City staff or the board, if one is created, should consider the following questions when developing goals for the community garden program:

- Who will the garden serve? What is its purpose?
- Does the city want to:
    - Grow food for food banks or other nonprofits?
    - Provide food directly to residents in poorer areas to improve food access?
    - Provide educational opportunities?
    - Provide the opportunity for any resident to have their own garden?

Public outreach, particularly in areas targeted for possible community garden establishment, can help gauge interest and preferences. This can help local governments determine what types of gardens residents would like to see in the community and help establish community support.

[18] City of Grand Prairie community gardens program: https://www.gptx.org/About-Grand-Prairie/Green-Grand-Prairie/Keep-Grand-Prairie-Beautiful/Community-Garden-Program

STEP THREE: ESTABLISH STAKEHOLDERS

If the city anticipates having a large program, it may be worthwhile to establish an official stakeholder group or board to make formal decisions on behalf of the gardens program. Depending on where the program is situated within the city, gardens tasks could be assigned to an existing board, such as a parks board, or a subcommittee. The group could be tasked with:

- Helping to develop agreements
- Siting potential garden locations
- Recruiting applicants
- Determining a maintenance plan/strategy
- Budgeting/funding

Holding regular meetings can help the program to stay organized and possibly help increase garden longevity. The city or stakeholder group should also determine and delegate program responsibilities to all involved parties to ensure a smooth operation. For example, who will handle maintenance or gather supplies for the gardens, etc.?

STEP FOUR: CHOOSE GARDEN FRAMEWORK

As previously discussed in Section 2, there are various types of gardens. The next step is to determine the type of garden program the city will pursue and outline this in the formal agreement (discussed in Step Five). Local governments should consider which framework would work best given available staff time, funding, community feedback, and other resources. Exhibit 7 summarizes some local and national garden programs to provide examples of different types of frameworks. Each program is set up differently, so coordinators should consider what would work best for their city and available resources. Appendix A includes a summary, web page link, and examples from each of these programs.

Overall, each city has a designated staff member to oversee the gardens program and provide administrative support to gardens if need be. Other programs have indicated that collaboration with other departments or programs is crucial for a local government-led gardens program. Some of the duties they identified include:

- Act as the garden liaison in discussion with other city departments, elected officials, or organization boards
- Conflict resolution and troubleshooting for garden members
- Manage garden funding
- Manage website/other marketing aspects
- Coordinate with other departments as needed

Exhibit 7: Local and State Garden Programs

	City of Austin	City of Coppell[19]	City of Temple	City of Grand Prairie	City of Arlington
Structure	Rents vacant city land to organizations.	Rents vacant city land to organizations.	Has garden on city land and allows plot rentals	Gardens are located on host organization-owned land. Materials are owned and maintained by City.	Joint agreement between UTA and city. Food is donated. Garden located on UTA property.
Staff	Has dedicated staff under Urban Agriculture Department.	Has dedicated staff and official steering committee.	City staff member works with appointed volunteer garden coordinator	Keep Grand Prairie Beautiful Coordinator, in the Solid Waste and Recycling Department, oversees the program	Mostly UTA staff
Funding	Does not fund gardens but provides water subsidies.	City pays for all utilities.	Provides some funding each year for maintenance or supplies.	Funding is provided by the Solid Waste and Recycling Department	Funding from UTA and City for some maintenance.
Approval Requirements	Must apply and application is approved by City department who owns the land.	Must apply and application is approved by garden board.	No formal application – just pay plot rental fee.	The creation of a new community garden is at the discretion of the City of Grand Prairie.	N/A
Other Requirements	Gardens must be managed by non-profit.	Must donate a portion of produce.	None	Gardens are asked to donate 10% of what they grow to a local food pantry	N/A

The city will also need to determine how to handle the produce generated in the gardens and include this information in the garden agreement. Applicants should be made aware of the produce requirements up front to prevent future misunderstandings. Gardens can be donation-based, meaning that either all or a certain percentage of the produce is donated. If this is the case, the city or applicant can partner with a local food bank or other organization to donate however much the city will require. Gardens can also leave the produce up to the gardeners.

[19] City of Coppell community gardens program: https://coppellcommunitygarden.org/

Many programs use a combination of these methods. The city should refer to the program goals/purpose and choose the option which aligns best.

The following were identified as the most common types of community garden frameworks for city programs:

- City-led: City manages most aspects of garden program, usually has a board to make decisions, approves applications for plot use on city-owned land.
- City-sponsored: City assists organizations in establishing gardens on city land, but allows organizations to maintain control over most garden aspects like produce donation, maintenance, etc.

This guide focuses on a city-led framework with garden plots established on public land and most produce kept by gardeners or donated.

STEP FIVE: DEVELOP AGREEMENTS AND PROCESSES

This section will review processes and considerations related to agreements for city-led programs. After selecting the garden framework, local governments will need to work with their legal team to develop agreements. This will likely include a land use agreement, which allows the gardens to exist on city-owned land. The city may also want to consider establishing a permitting process for each individual garden, which would be included in the application for a plot. If an official board has been established, members could approve the applications and permits, or the city can choose to have the liaison do this.

Grow boxes at community garden in Grand Prairie. Photo courtesy City of Grand Prairie.

The cities of Dallas, Texas and Tampa, Florida have official city ordinances regarding community gardens. The City of Dallas urban agriculture ordinance outlines the specific land uses and rule for operating a community garden on city property. The City of Tampa ordinance is an example of a code amendment to allow for community gardens as a special land use (Appendix B). Local governments can reference these examples when building or amending their own zoning ordinances regarding community gardens. If a city chooses to partner with another organization for the program, a memorandum of understanding or a more formal agreement will be needed depending on the type of partnership.

A memo of understanding could be used in the case of a city partnering with a school to develop a garden site. However, if a city partners with a transit agency to have a site in the agency's right-of-way, a more formal land use agreement may be needed.

Residents applying to use a community garden site should list the specific site they desire, so including potential sites in the application may be helpful. The city can choose to include previously identified parcels in the application, or an organization may recommend a potential site (e.g., vacant plot near a church). This site designation process will also need to be considered by city staff during the development of agreements. See Section 3 for a high-level overview of possible community garden locations according to the NCTCOG green space analysis. The analysis is meant to be a resource for local governments to begin identifying more specific community garden sites.

Grand Prairie Community Garden. Photo courtesy City of Grand Prairie.

After the land use/permitting process has occurred, bylaws should be developed by the public entity as well as a garden plot agreement. The agreement outlines the bylaws and general program information and provides space for the applicant to give details about the garden plot. The ACGA has a published agreement template local governments can include in their applications (see Appendix B). As previously mentioned, the local government will need to establish a maintenance agreement during this process as well. The maintenance agreement may include information regarding garden upkeep, who to contact or who manages garden site maintenance such as utilities or other infrastructure related to the gardens site, and rules for gardeners regarding maintenance.

More detailed examples of each agreement and permit applications are included in Appendix B. An example application from the City of Austin is also included in Appendix A.

STEP SIX: DEVELOP APPLICATION AND TIMELINE

Either the city liaison or stakeholder group should then develop an application for potential gardeners. The application should include basic contact information, purpose/type of garden,

produce allocation plan, and any other details the city or board may require. Example applications are included in Appendix A. Additional considerations for garden applications may include:

Produce Allocation

The application should include information about how the produce will be handled, as determined by the city's goals for the project. For example, the City of Austin's Program requires that gardeners donate a certain percentage of produce for homeless shelters or food banks.

Garden Plan

Requiring a garden plan in the application can help inform organizations about the expectations of joining the gardens program. The plan can include general gardening information, what gardeners plan to grow and how, constructing garden plots, when they plan to grow produce (i.e., part of the year or all year), and other information. Appendix B features various general resources regarding these topics that local governments can use.

Grow box from City of Coppell community garden. Photo courtesy of City of Coppell.

Garden Challenges

Maintaining gardens can be challenging over a long period of time, and new gardeners may not be aware of the amount of time and labor required for a garden to be successful. For that reason, it is a good idea to make the challenges clear up front to potential applicants. For example, the City of Coppell includes a section in their community gardens application (Appendix A) that states up front the average hours required and other general garden upkeep information to inform potential applicants about the work that goes into produce gardening prior to committing. Staff with the City of Grand Prairie's program cited similar issues with gardener retainage. Being transparent with expectations and garden needs/requirements should help alleviate this issue.

STEP SEVEN: GARDEN EDUCATION

Some garden programs offer a seminar or other educational opportunities or materials on the basics of gardening that may be useful for interested organizations. The city should determine if

this would be a possibility for its program and if so, what resources or training it could provide to applicants. The City of Coppell offers an orientation and written booklets to help volunteer gardeners establish their plots. Similar resources are featured in Appendix A. Another helpful tip for the education component is to include a frequently-asked-questions (FAQ) section on the program website. This may help gardeners looking to apply better understand the responsibilities tied to gardening. The City of Fayetteville, Arkansas includes a detailed FAQ section on their program web page that is a good example of this[20].

STEP EIGHT: PROGRAM IMPLEMENTATION AND MARKETING

Once the city program has been officially established and has the appropriate documents, start advertising! Creating a web page and promoting it on social media are easy ways to give citizens access to all garden documents, potential locations, and other important information. Local governments may also want to create flyers to be emailed or posted online and in community centers or libraries. Information can also be included in utility bills, newsletters, or city council emails. Having the application available online will likely increase participation.

Also, setting up a garden-specific email will help give residents a designated point of contact and will not interfere with city staff regular email inboxes. Any complaints and comments can be directed here, as well.

STEP NINE: APPLICATIONS

Have applicants submit their applications and set up time to review them with the city garden liaison or the stakeholder group. After approval, send out appropriate agreements and have them signed and returned. A city liaison or coordinator could schedule time to meet with organizations/individuals to go over garden rules, location, and other specifics. The city should consider how often to approve applications. This could be as they come in, quarterly, annually, etc.

STEP TEN: CONSTRUCT GARDENS

The purpose of this guide is to provide guidance on the establishment of a publicly led community gardens program, particularly near transit. Program leaders can evaluate the open spaces included in Section 3 as potential garden sites, but also conduct site visits to determine the

[20] City of Fayetteville: https://www.fayetteville-ar.gov/191/Community-Gardens

feasibility of gardening on those parcels. Consideration should be given to soil type, access to water, accessibility, etc.

Specific garden bed designs and overall garden layout should be predetermined by the designated stakeholder group or by the garden applicants, who ideally have previous experience. Other considerations regarding garden construction may include:

- Garden arrangement
- Plot sizes for each gardener
- Fencing/security
- Community tool/supplies shed or storage space
- Designated areas for mulch, compost, soil amendments

A list of resources for specific technical information about constructing gardens/other gardening tips can be found in Appendix C.

STEP ELEVEN: EVALUATE THE PROGRAM

Collecting data to assess the gardens program can further help a city to justify receipt of annual revenue from the city budget to continue garden efforts and determine whether changes need to be made to ensure program success. The city liaison or stakeholder group could work to develop a rubric or criteria to assess program progress over a year. Local governments can have gardens submit an annual report of the gardens' accomplishments and outline challenges that they are having. This could also help garden longevity through the application of lessons learned.

Local governments should also consider funding aspects and evaluate program costs after one year. It is important for the city to determine if they can properly maintain the gardens program financially after having it for one year. This will enable program coordinators to set a budget for the upcoming year.

7. CLOSING

The steps included in this guide were compiled after various interviews and research and are intended to aid establishment of successful public community gardens programs across the Dallas-Fort Worth region. Starting a city-led community gardens program can help to address various food access and insecurity issues, all while providing a space for community gathering, socialization, education, and other benefits as highlighted in this guide. Furthermore, improving multimodal transportation access and implementing creative land use solutions can have a significant impact on food access within a community. Local governments may consider the available open spaces featured in Section 3, as those are the most ideal properties based on accessibility and topography. While there are challenges to community gardening programs, the potential benefit can contribute to a happier and healthier community. For more information about this effort, please visit https://www.nctcog.org/ green-infrastructure.